

**REMARKS**

Claims 1-9 and 11-22 are currently pending in the application. By this response, no claims are amended, added, or canceled. Claims 11-15 and 22 were withdrawn from consideration by the Examiner as being directed to a non-elected invention. By the present remarks, Applicants submit that the rejections have been overcome, and respectfully requests reconsideration of the outstanding Office Action and allowance of the present application.

***Interview Summary***

Applicants thank Examiner Ferguson for the courtesies extended by the Examiner during telephone interviews between the Examiner and Applicants' representative on January 30, 2009 and again on March 2, 2009. In the interview dated January 30, 2009, Applicants' representative pointed out that the Office Action dated January 27, 2009 did not appear to properly re-open prosecution pursuant to MPEP §§ 1207.04 and 1002.02(d) because the action was not signed by a Supervisory Patent Examiner (and because the action included an outdated form-paragraph that refers to reversed rule 37 CFR 1.193). The Examiner agreed to look into the matter, and subsequently informed Applicants' representative that the new Office Action would be issued. A new Office Action was indeed issued on February 18, 2009.

In the interview dated March 2, 2009, Applicants' representative noted that the Office Action dated February 18, 2009 did not indicate that the Office Action dated January 27, 2009 was vacated. The Examiner informed Applicants' representative that the Office Action dated January 27, 2009 was vacated, and that Applicants need only respond to the pending Office Action dated February 18, 2009.

### ***35 U.S.C. §103 Rejection***

Claims 1-3, 8-9, and 16-21 are rejected under 35 U.S.C. §103(a) for being unpatentable over U.S. Patent No. 6,449,918 (“Nelson”). Claims 4-7 are rejected under 35 U.S.C. §103(a) for being unpatentable over Nelson in view of U.S. Patent No. 5,855,832 (“Clausi”). These rejections are respectfully traversed.

To establish a *prima face* case of obviousness, all claim limitations must be taught or suggested by the prior art. *See, In re Royka*, 490 F.2d 981, 985, 180 USPQ 580, 583 (CCPA 1974); *see also, In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).<sup>1</sup> If the prior art reference(s) do not teach or suggest all of the claim limitations, Office personnel must explain why the differences between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art (MPEP 2141). Applicants submit that the applied art does not disclose or suggest the combinations of features recited in the claimed invention.

#### *Claims 1-3, 8-9, and 16-21 in view of Nelson*

##### Independent claim 1

The present invention relates to a panel that is usable in laminate flooring. More specifically, independent claim 1 recites:

1. A panel having a support board made of glued and compressed woodbased material to which a termination layer is applied in each case on a top side and an underside, and the termination layer of the top side has a structured surface, wherein the density on the top side of the support board is lower than the density of the support board on the underside.

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<sup>1</sup> While the *KSR* court rejected a rigid application of the teaching, suggestion, or motivation (“TSM”) test in an obviousness inquiry, the [Supreme] Court acknowledged the importance of identifying “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does” in an obviousness determination. *Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1356-1357 (Fed. Cir. 2007) (quoting *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1731 (2007)).

The Examiner asserts that Nelson discloses a panel having a reinforcing substrate (support board) having a top wear surface and a bottom surface with a backing layer surface attached to the substrate. The Examiner alleges that “water is used to penetrate from the underside of the flooring panel (col. 14, lines 16-20).” The Examiner specifically concludes:

Paragraphs 0015-0016 of the instant specification discloses the density of on the top side of a support board is lower than the density of the underside when the top surface is stamped and water is applied to the underside prior to the material being heated and compressed. Because Nelson discloses the top side is embossed (stamped) and the underside has water penetrated prior to the material being heated and compressed, it is expected for the top side to have a structured surface, where the density on the top side of the support board is lower than the density of the support board on the underside, with the density distribution through a thickness of the board is substantially parabolic in shape, as in claims 1, 8 and 16-21.

(Office Action, page 3)

Applicants disagree with the conclusion of obviousness for the following reasons. Initially, Applicants submit that Nelson does not disclose or suggest all of the features of the claimed invention. Particularly, Nelson does not teach *the density on the top side of the support board is lower than the density of the support board on the underside*, as recited in claim 1. Moreover, Applicants submit that the Examiner’s conclusions are erroneously based on an apparent misunderstanding and/or mischaracterization of what is described in the Nelson reference. Furthermore, Applicants submit that the rejection is improper and unsustainable because it is not factually supported, but rather is founded on speculation, unfounded assumption, and/or hindsight reconstruction.

*Nelson does not disclose or suggest the density on the top side of the support board is lower than the density of the support board on the underside.*

In embodiments of the invention, the support board has an asymmetric density profile throughout it's cross section. This results in the density of the top side of the support board being lower than the density at the underside of the support board. An exemplary density distribution of the inventive support board is shown in FIG. 2, reproduced below with annotations.

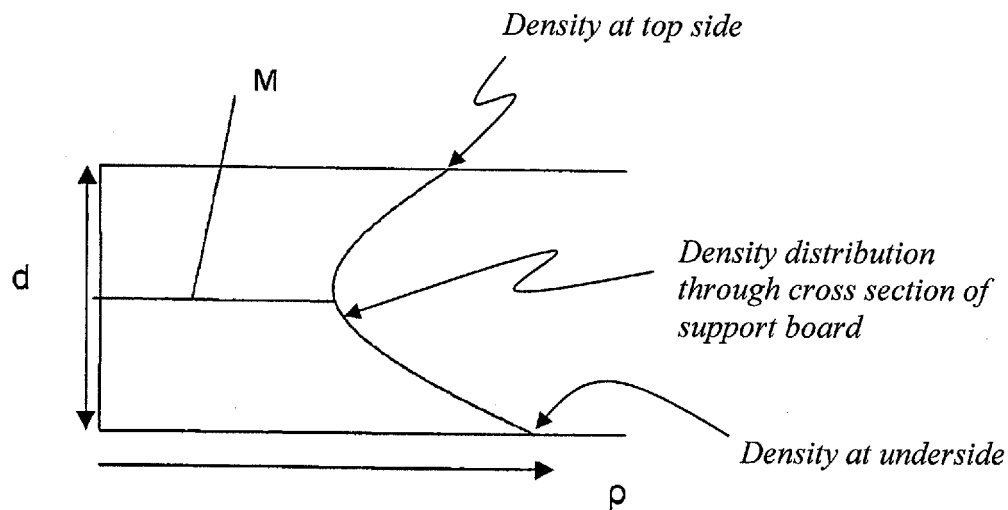


Fig. 2

In contrast to the claimed invention, Nelson makes no mention whatsoever of relative densities of different portions of a support board. More specifically, Nelson does not describe a density at the top side of a support board and a different density at an underside of the support board, much less that *the density on the top side of the support board is lower than the density of the support board on the underside*, as recited in claim 1.

Instead, Nelson discloses a connector 1 for use with a multi-panel floor system. The connector 1 is used to connect flooring panels 20 (FIG. 18). Each panel 20 comprises: a top wear surface 21; a middle substrate 22 or reinforcing material below the top surface; and optionally, a

backing layer surface 23 attached to the middle substrate (FIG. 18; col. 15, lines 63-67; col. 16, lines 1-2). The top wear surface 21 preferably comprises a decorative laminate (col. 16, lines 3-5). The substrate 22 may be made of medium to high density fiber board (col. 17, lines 10-13).

However, Nelson is completely silent as to the existence of different densities at different portions of the panel 20. The term “density” only appears where Nelson describes that the substrate 22 may be medium to high density fiber board, as noted *supra*. However, as one of ordinary skill in the art would readily recognize, Nelson’s reference to medium density fiberboard (e.g., MDF) and high density fiberboard (e.g., HDF) refers to the substrate 22 as a whole. Applicants submit that without any additional description regarding the substrate 22, it is impossible to glean from Nelson that the density at the top side of the substrate 22 is lower than the density at the underside of the substrate 22. Therefore, Nelson does not disclose or suggest a panel having a support board in which *the density on the top side of the support board is lower than the density of the support board on the underside*, as recited in claim 1.

Nor has the Examiner identified any such disclosure of relative densities in Nelson. Instead, as discussed in greater detail below, the Examiner infers that the recited densities are expected to be present in the Nelson panel.

***The Examiner’s conclusions appear to be based on a misunderstanding and/or mischaracterization of what is described in the Nelson reference.***

In discussing Nelson, the Examiner asserts that “water is used to penetrate from the underside of the flooring panel (col. 14, lines 16-20)” and “[b]ecause the underside has water penetrated prior to the material being heated and compressed, it is expected ... the density on the top side of the support board is lower than the density of the of the support board on the underside, with the density distribution through a thickness of the board is substantially parabolic in shape.” The Examiner apparently believes that Nelson’s manufacturing process is similar to

Applicants', and that because of the similar manufacturing processes the Nelson panel would be expected to have the same densities as Applicants' panel. Applicants disagree for the following reasons.

Contrary to the Examiner's assertions, Nelson does not disclose that water penetrates the underside prior to the material being heated and compressed. Instead, Nelson discloses that water may penetrate already produced panels, causing damage to the installed panels. More specifically, at lines 16-30 of col. 14, Nelson describes how the inventive panels avoid the problem of "seam swell" or "peaking." Seam swell occurs when water penetrates a seam between installed panels (i.e., between panels that have already been manufactured and laid together in a connected state on a floor surface). The water causes the material of the installed panels to change shape (i.e., swell), which distorts the seam between the two installed panels. Particularly, Nelson states:

The system of the present invention also eliminates "seam swell" or "peaking" caused by the typical tongue and groove systems. When moisture (water) penetrates the seam from above the floor or reaches the seam from the underside of the flooring panel the seam profile swells. By way of explanation, the tongue profile will grow in size and the groove profile will shrink in size. This causes the entire panel thickness to change (grow in thickness) in the seam area. The result is "peaking" directly above the seam area. Since the present invention uses a connector having flanges to make the joint between two panels, the flange is no longer made of a material that absorbs moisture. Thus, there is no tongue which expands upon absorbing moisture so that "peaking" is no longer a problem when using the present inventive system.

(col. 14, lines 16-30).

Thus, Nelson describes a well-known situation in which water penetrates the panels after the panels have already been manufactured. There is simply no suggestion in the above-noted passage, or in any other passage of Nelson, that the underside of the panel is penetrated with water prior to the material being heated and compressed during manufacture. Therefore,

Examiner's conclusion regarding the expected density of the Nelson panel is erroneous because the Examiner's reasoning is based on misunderstanding and/or mischaracterization of what is described in the Nelson reference.

In contrast to Nelson, in embodiments of the claimed invention, the recited densities are achieved not by merely adding water to a finished board, but rather by using water to enhance the heat transfer at the underside of the support board during the manufacturing (i.e., heating and pressing) of the support board. This is explained at paragraph 0016 of Applicants' published application (U.S. Pub. No. 2004/0126550):

[0016] The single-sided reduction in the bulk density of the support board on the top side during the production process takes place either by virtue of the cover layer of the top side being ground off or by the single-sided application of good heat conductors, such as water, on the underside prior to the woodbased material being heated and compressed during the production of the support board. The supply of the heat-conducting media, for example by spraying the woodbased materials designed, for example as a fiber mat, results in the heat penetrating more quickly into the fiber mat. The adhesives are thus activated more quickly and enhanced compression takes place on one side of the fiber mat. On the opposite side, the degree of compression is correspondingly lower, with the result that this side can be used for easier surface stamping. This process maintains the fiber structure while, at the same time, having different densities on the top side and underside, which has an advantageous effect on the strength of the support board and of the panel.

Thus, in embodiments of Applicants' invention, application of water to the underside of the support board during manufacturing affects the heat transfer at the underside of the support board during the heating and pressing step. Because of the improved heat transfer, the outer surface of the underside becomes hard due to the very quick gluing. This leads to a higher internal pressure in the support board because of the steam that is produced by the heat of the press plates and the moisture content of the fibers. This heat transfer mechanism operates to affect the density of the support board during manufacturing, but not during use of an already manufactured support board or the panel. In fact, when water penetrates an already manufactured

support board or panel, the density actually decreases. This is because the addition of water to an already manufactured panel leads to a kind of destruction of the bonding of the woodbased fibers and a swelling of the fibers, so that the density in the area of water penetration actually decreases.

Nelson does not disclose such a manufacturing process for the substrate 22. Particularly, Nelson does not disclose or even remotely suggest that water is applied to the underside of the substrate 22 during manufacture of the substrate 22 in order to enhance the heat transfer at the underside of the substrate 22 during a heating and pressing step. Instead, Nelson merely discloses that the substrate 22 may be fiberboard. Moreover, as noted above, the passage of column 14 of Nelson identified by the Examiner only describes water penetrating an installed panel long after the manufacturing has finished, which would lead to a decrease in the density at the underside of Nelson's panel, which is the opposite of the claimed invention. There is simply nothing in column 14 that indicates that water has penetrated the underside of Nelson's substrate prior to the substrate being heated and pressed.

Therefore, Nelson does not disclose a manufacturing process even remotely similar to that described by Applicants. Accordingly, contrary to the Examiner's assertions, one of ordinary skill in the art would not expect the Nelson panel to have a support board in which *the density on the top side of the support board is lower than the density of the support board on the underside*, as recited in claim 1.

**The rejection is improper and unsustainable because it is not factually supported, but rather is founded on speculation, unfounded assumption, and/or hindsight reconstruction.**

It is well established that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness (MPEP 2142). Rejections based on §103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention



from the prior art. The Office may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. *See, In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), *cert. denied*, 389 U.S. 1057 (1968). In the pending rejection, the Examiner has provided no factual basis whatsoever to support the conclusion that Nelson teaches a support board in which *the density on the top side of the support board is lower than the density of the support board on the underside*, as recited in claim 1. Instead, the Examiner is merely speculating as to what might be the density of the Nelson panel. This is clearly improper and renders the rejection unsustainable. In fact, as noted above, this speculation has led to an improper conclusion. That is, as discussed above, the density of the underside of the Nelson panel would actually decrease due to water swelling.

To the extent that the Examiner might be basing the rejection on a determination of inherency (i.e., that the claimed density features are inherently present in the Nelson panel), Applicants hereby traverse any such assertion of inherency. MPEP §2112 provides the following guidance regarding rejections based upon inherency:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). [emphasis added].

...

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the

allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)

Applicants respectfully submit that the Examiner’s assertion that Nelson’s panel is expected to have the same density as the claimed invention does not provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. Therefore, although the Examiner did not explicitly express a finding of inherency, to the extent that the rejection might be based upon inherency, Applicants traverse such a determination of inherency and request that the Examiner provide in the next Office Action a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.

For all of the above-noted reasons, Applicants submit that Nelson does not disclose or suggest all of the features of independent claim 1, and that the Examiner has failed to adequately explain why the differences between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art. Therefore, the invention recited in claim 1 is not rendered unpatentable by Nelson.

Claims 2, 3, 8, and 9 depend from allowable independent claim 1, and are allowable at least for the reasons discussed above with respect to the independent claim. Moreover, Applicants submit that the applied art does not disclose or suggest many of the features recited in these dependent claims.

#### Claims 2 and 3

Claim 2 depends from independent claim 1, and additionally recites the support board has a density of less than  $700 \text{ kg/m}^3$ . Claim 3 depends from independent claim 1, and additionally recites a gluing factor of the support board is greater than 10%. The Examiner asserts that

density and gluing factor are optimizable features, and that “in the absence of any evidence to the contrary it would have been obvious to one of ordinary skill in the art to optimize layers of a panel because discovering the optimum or workable range involves only routine skill in the art.”

Applicants disagree.

Applicants submit that Nelson does not disclose or suggest that substrate 22 has a density of less than  $700 \text{ kg/m}^3$ , or that a gluing factor of the substrate 22 is greater than 10%. In fact, Nelson is completely silent with respect to these parameters, and does not even discuss density or gluing factor values. Nor has the Examiner identified any passage in Nelson that teaches such features. Instead, the Examiner merely asserts that the claimed features would have been obvious through discovering an optimum or workable value.

Applicants submit that the Examiner’s assertion of obviousness via optimization is insufficient to establish a *prima facie* case of obviousness because it is not factually supported and because it is conclusory. For example, the Examiner has failed to provide any reasoning regarding exactly what the scope of routine experimentation encompasses in the art of floor panels, such as that disclosed by Nelson. Moreover, the Examiner has failed to provide any reasoning that explains how, given Nelson as a starting point, the claimed density and gluing factor are within the scope of routine optimization. As set forth in MPEP 2142, the Supreme Court has held that conclusory rejections are improper:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that “rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR*, 550 U.S. at \_\_\_, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval).

In this rejection, however, the Examiner does not provide any basis in fact or articulated reasoning to support the conclusion that it would have been obvious to modify the density and/or gluing factor of the Nelson substrate, or that that one of ordinary skill in the art would have recognized that the results of such proposed modifications were predictable. Instead, the Examiner merely concludes that it would have been obvious through “optimization” to modify the density and gluing factor of the Nelson substrate. This type of factually unsupported and conclusory rejection is clearly improper in light of *KSR*.

Therefore, for all of the above noted reasons, Applicants submit that the rejection of claims 2 and 3 are improper and should be withdrawn.

#### Claim 9

Claim 9 depends indirectly from independent claim 1, and additionally recites a density of  $1000 \text{ kg/m}^3$  is present on the underside of the support board, while a density of from  $400 \text{ kg/m}^3$  to  $600 \text{ kg/m}^3$  is present in the center of the support board. Applicants submit that the applied art does not disclose or suggest all of the features recited in claim 9. That is to say, Nelson does not disclose or suggest a panel having a support board in which a density of  $1000 \text{ kg/m}^3$  is present on the underside of the support board, while a density of from  $400 \text{ kg/m}^3$  to  $600 \text{ kg/m}^3$  is present in the center of the support board. Nor has the Examiner identified any such features in Nelson. Nor has the Examiner explained (using articulated reasoning with rational underpinning to support the legal conclusion of obviousness) why the differences between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art.

Instead, the Examiner merely groups claim 9 with the rejection of claims 2 and 3, in which the Examiner asserts that density is optimizable. This type of rejection is clearly improper

as being conclusory and not factually supported, as discussed above. Therefore, the rejection of claim 9 is should be withdrawn.

Independent Claim 16

Independent claim 16 recites:

16. A panel, comprising:  
a support board composed of glued, compressed woodbased material,  
having a top side and an underside;  
a first termination layer provided on the top side;  
a second termination layer provided on the underside,  
wherein the density of the support board continuously decreases from the  
top side to a substantial midpoint of the support board, and continuously  
decreases from the underside to the substantial midpoint.

As with claim 1, the Examiner does not identify any disclosure by Nelson of the density of substrate 22, and fails to suggest any modification of Nelson. Instead, the Examiner merely concludes that “it is expected ... the density on the top side of the support board is lower than the density of the of the support board on the underside, with the density distribution through a thickness of the board is substantially parabolic in shape.” Applicants disagree with the conclusion of obviousness for the following reasons.

Initially, Applicants submit that the Examiner’s rejection does not even address the language of claim 16. Claim 16 recites inter alia *the density of the support board continuously decreases from the top side to a substantial midpoint of the support board, and continuously decreases from the underside to the substantial midpoint*. The Examiner does not assert that such a density pattern is taught by (or even expected to be present in) Nelson. Instead, the Examiner only alleges that the density on the top side of Nelson’s support board is lower than the density of the of the support board on the underside, and the density distribution through a thickness of the board is substantially parabolic in shape. However, those features are not recited in claim 16.

Instead, claim 16 recites, in pertinent part: (i) the density of the support board continuously decreases from the top side to a substantial midpoint of the support board, and (ii) continuously decreases from the underside to the substantial midpoint. These recited features are not addressed in the rejection.

This makes the rejection fatally defective on its face, since MPEP §2143.03 states: “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Moreover, 37 C.F.R. §1.104 states: “[t]he examination shall be complete with respect both to compliance of the application or patent under reexamination with the applicable statutes and rules and to the patentability of the invention as claimed ...” (emphasis added). Moreover, MPEP §707.07(d), states that “[a] plurality of claims should never be grouped together in a common rejection, unless that rejection is equally applicable to all claims in the group.” In this case, the Examiner has improperly grouped claim 16 with the rejection of other claims while failing to address the language of claim 16.

In any event, Applicants submit that Nelson does not fairly teach or suggest *the density of the support board continuously decreases from the top side to a substantial midpoint of the support board, and continuously decreases from the underside to the substantial midpoint*, as recited in claim 16. As discussed above with respect to claim 1, Nelson is completely silent as to a density profile within the panel. Nelson only discloses that the substrate 22 may be made of medium density fiberboard or high density fiberboard. However, Nelson makes no mention of the density profile within the substrate 22. There is simply no way to tell from the Nelson disclosure that the density of the of the substrate 22 continuously decreases from the top side of

the substrate 22 to a substantial midpoint of the substrate 22, and also continuously decreases from the underside of the substrate 22 to the substantial midpoint.

Moreover, even assuming for argument sake that Nelson's panel does have a parabolic shaped density distribution (as alleged by the Examiner and disputed by Applicants), such a parabolic shaped density profile still does not necessarily read on claim 16. This is because a parabolic shaped density profile does not necessarily have its vertex at the substantial midpoint of the support board. If the vertex of the parabola is not at the substantial midpoint of the support board, then the density does not continuously decrease from the top side of the support board to a substantial midpoint of the support board, and also continuously decrease from the underside of the support board to the substantial midpoint. Therefore, even if the Examiner's allegations are taken at face value (which Applicants dispute), the rejection still fails to arrive at the invention recited in claim 16.

Additionally, Applicants submit that the "swelling" disclosed by Nelson would not result in the claimed invention. As discussed *supra*, water that penetrates the underside of an installed panel will decrease the density at the underside of the panel due to the expansion of the fibers. While such swelling might create a non-uniform density profile within the panel, there is no suggestion that such swelling would result in the density continuously decreasing from the underside of the support board to the substantial midpoint of the support board. For example, such a density profile would not be continuous, but rather would have a step discontinuity at the point between where the swelling ends and where the swelling begins.

The rejection of claim 16 is also improper because the Examiner's allegation that Nelson's panel is expected to have the same density as the claimed invention is factually unsupported, conclusory, and based on speculation. For all of the above noted reasons,

Applicants submit that the Examiner has failed to establish that Nelson teaches a panel having a support board in which *the density of the support board continuously decreases from the top side to a substantial midpoint of the support board, and continuously decreases from the underside to the substantial midpoint*, as recited in claim 16.

Claims 17-21 depend from allowable independent claim 16, and are allowable at least for the reasons discussed above with respect to the independent claim. Moreover, Applicants submit that the applied art does not disclose or suggest many of the features recited in these dependent claims. For example, claim 17 recites the density at the top side is less than the density at the underside. As discussed above with respect to claim 1, this is not taught by Nelson.

Additionally, claim 20 recites *a density distribution through a thickness of the support board is substantially parabolic in shape*. However, there is absolutely no teaching whatsoever in Nelson that a parabolic shaped density distribution. Nor has the Examiner identified any factual evidence that would lead one of ordinary skill in the art to conclude that Nelson teaches a parabolic density profile in the panel. Instead, the Examiner merely alleges that Nelson's panel is expected to have a parabolic shaped density distribution. However, this allegation is not supported by the facts, is improperly conclusory, and is based upon speculation and an incorrect understanding of the Nelson disclosure.

Accordingly, Applicants respectfully request that the §103 rejection of claims 1-3, 8-9, and 16-21 be withdrawn.

Claims 4-7 in view of Nelson and Clausi

Claims 4, 5, and 7

Claims 4, 5, and 7 depend from allowable independent claim 1, and are allowable at least for the reasons discussed above with respect to claim 1. More specifically, as discussed above,



Nelson fails to disclose or suggest a support board in which the density on the top side of the support board is lower than the density of the support board on the underside, as recited in claim 1.

Clausi does not compensate for the deficiencies of Nelson with respect to claim 1. That is to say, Clausi does not disclose or suggest a support board in which the density on the top side of the support board is lower than the density of the support board on the underside. Instead, Clausi merely discloses a method of molding powdered plant fiber into high density materials that utilizes a resin binder (e.g., urea formaldehyde, melamine formaldehyde, etc.).

Therefore, the applied references fail to disclose or suggest all of the features of independent claim 1, and (by definition) claims 4, 5, and 7 that depend from claim 1.

#### Independent Claim 6

Independent claim 6 recites:

6. A panel having a support board made of glued and compressed fiber material to which a termination layer is applied in each case on a top side and an underside, and the termination layer of the top side has a structured surface, wherein the density on the top side of the support board is lower than the density of the support board on the underside, and isocyanates are used as a means for gluing woodbased materials of the support board, and further comprising a gluing factor of less than 20% for isocyanates.

Applicants incorporate by reference and repeat the arguments set forth *supra* with respect to claim 1. That is to say Nelson does not teach *the density on the top side of the support board is lower than the density of the support board on the underside*, as recited in claim 1. Moreover, Applicants repeat the arguments previously made with respect to claims 2 and 3, i.e., that the rejection is conclusory in nature and factually unsupported.

For all of these reasons, Applicants submit that the rejection of claim 6 is improper. Accordingly, Applicants respectfully request that the §103 rejection of claims 4-7 be withdrawn.

***Rejoinder of Withdrawn Claims***

Applicants respectfully submit that claim 22 is a linking claim in accordance with MPEP §809.03. More particularly, claim 22 includes the process limitations of claim 11 and depends from product claim 1, thereby linking the process and the product. Therefore, pursuant to MPEP §821.04, rejoinder of withdrawn claims 11-15 is proper since the elected “panel invention” is allowable, and all claims to the non-elected “process invention” depend from or otherwise require all the limitations of an allowable claim (i.e., allowable claim 22 includes all of the features of claims 1 and 11).

Accordingly, Applicants respectfully request that claims 11-15 be rejoined, and claims 1-9 and 11-22 be allowed.

## CONCLUSION

In view of the foregoing remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 19-0089.

Respectfully submitted,  
Thomas GRAFENAUER

A handwritten signature in black ink, appearing to read 'A. M. Calderon', written over a horizontal line.

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